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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,698	09/27/2005	Eric Perraud	SC12528ET	3790
23125 7590 02/04/2009 FREESCALE SEMICONDUCTOR, INC. LAW DEPARTMENT 7700 WEST PARMER LANE MD:TX32/PL02 AUSTIN, TX 78729				
EXAMINER HO, CHUONG T				
ART UNIT 2419		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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# Office Action Summary

**Application No.**

10/550,698

**Applicant(s)**

PERRAUD ET AL.

**Examiner**

CHUONG T. HO

**Art Unit**

2419

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 October 2008.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-28 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 11-28 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/SE-08)  
Paper No(s)/Mail Date 09/27/05, 08/07/06  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. The supplemental preliminary amendment filed 10/13/08 have been entered and made of record.
2. Claims 11-28 are pending.

***Information Disclosure Statement***

3. The information disclosure statement (IDS) submitted on 09/27/05, 08/07/06 was filed. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 11-12, 15, 17-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinichiro Iwata (GB#2345213 A "Date of A Publication 28.06.2000) in view of Tran (Patent Number: 5,392,276)).

Regarding to claim 11, Shinichiro Iwata '213 disclose detecting local conversational activity at each of said terminals (figure 1, station A, station B) respectively, sending

conversational activity signals (figure 1, P/F bit =1) (figure 1, bit = 0) indicative of the local conversational activity condition from each of said terminals (station A) to the other terminal (station B) (page 7, lines 10-22, the P/F (poll/final) bit included in a frame is used to exchange the right to send between them) ;

controlling said reception and transmission means to communicate by half- duplex (see abstract, half-duplex) transmission of said conversational data packets in response to conversational activity at a first one of said terminals but not at the second one of said terminals (page 15, lines 1-12, when PWDWN is set to 1, the station B is set to the power-down reset mode. Therefore, power is started supplying to the reception driver for driving the light-receiving device to operate the light-receiving function of the station B) (when operating is send phase, the receiving function is stopped); and at least partially deactivating said reception means at said first terminal and said transmission means at said second terminal during said half-duplex transmission so as to reduce their power consumption (figure 1, when the station A is operating in send phase, the receiving function is stopped) (figure 1, when the station B is operating in receive phase, the sending function is stopped).

However, Shinichiro Iwata '213 is silent about disclosing a method of communication of conversational data signals between terminals over a radio link capable of full-duplex transmission of conversational data packets in alternate directions within a pair of time slots, said communication comprising time periods each comprising a set of said pairs of time slots, and said terminals comprising respective reception and transmission means for use in processing said conversational data packets respectively

received at and transmitted from the corresponding terminal.

Tran '276 disclose a method of communication of conversational data signals between terminals over a radio link capable of full-duplex (col. 1, lines 40-45, two-way full duplex) transmission of conversational data packets in alternate directions within a pair of time slots (col. 1, lines 40-45, pair of time slots) , said communication comprising time periods (col. 1, lines 40-45, time period) each comprising a set of said pairs of time slots (col. 1, lines 40-45, pairs of time slots), and said terminals comprising respective reception and transmission (col. 1, lines 30-35, each node within the network is connected to both the transmit channel and the receive channel) means for use in processing said conversational data packets (col. 1, lines 40-45, two-way full duplex conversation) respectively received at and transmitted from the corresponding terminal.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Tran '276 into the system of Shinichiro Iwata '213, since Tran '276 recited the motivation in the col. 1, lines 55-60 which utilizes the available resources in an environment where a party connected internal to a network is communicating with a party external to the network.

Regarding to claim 12, Shinichiro Iwata '213 disclose wherein controlling said reception means and said transmission means comprises at least partially switching off the supplies of power to said reception means and said transmission means (page 15, lines 13-17).

Regarding to claim 15, Shinichiro Iwata '213 disclose the limitations of claim 11 above. However, Shinichiro Iwata '213 are silent to disclosing wherein said conversational data packets comprise voice signals and the duration of said time periods corresponds to a phoneme period.

Tran '276 disclose wherein said conversational data packets comprise voice signals and the duration of said time periods corresponds to a phoneme period (col. 1, lines 40-45).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Tran '276 into the system of Shinichiro Iwata '213, since Tran '276 recited the motivation in the col. 1, lines 55-60 which utilizes the available resources in an environment where a party connected internal to a network is communicating with a party external to the network.

Regarding to claim 17, Shinichiro Iwata '213 disclose wherein said conversational activity signals are distinct from said conversational data packets (figure 1, P/F bit =1 "conversation activity signals") (figure 1, bit = 0) (page 7, lines 10-22, the P/F (poll/final) bit included in a frame is used to exchange the right to send between them)

Regarding to claim 18, Shinichiro Iwata '213 disclose wherein said local conversational activity detection is performed during each of said time periods at each of said terminals, and said conversational activity signals are sent from each of the terminals to the other terminal at least once during each of said time periods (figure 1, P/F bit =1

"conversation activity signals") (figure 1, bit = 0) (page 7, lines 10-22, the P/F (poll/final) bit included in a frame is used to exchange the right to send between them).

Regarding to claim 19, Shinichiro Iwata '213 disclose where conversational activity signals are sent from each of the terminals to the other terminal in the same time slot pair and control the half-duplex (see abstract, half-duplex) transmission direction for the next time period.

Regarding to claim 20, Shinichiro Iwata '213 disclose wherein at least a first one of said terminals communicates with a third terminal over a further communication link, said first terminal signalling a conversational activity signal indicative of conversational activity generated at said third terminal (page 15, lines 1-12, when PWDWN is set to 1, the station B is set to the power-down reset mode. Therefore, power is started supplying to the reception driver for driving the light-receiving device to operate the light-receiving function of the station B).

Regarding to claim 21, Shinichiro Iwata '213 disclose wherein the same activity procedure is used in synchronization between all said terminals (figure 1, page 7, lines 10-22 – page 8, lines 1-25).

Regarding to claim 22, Shinichiro Iwata '213 disclose wherein a different activity procedure is used in synchronization between one of said terminals and another of said

terminals (A) than between said one of said terminals and a third one of said terminals (figure 1, page 7, lines 10-22 – page 8, lines 1-25).

Regarding to claim 23, Shinichiro Iwata '213 disclose the limitations of claim 19 above. Shinichiro Iwata '213 are silent to disclosing wherein said further communication link is a cellular telephone link.

Tran '276 disclose wherein said further communication link is a cellular telephone link (col. 1, lines 40-45, pair of time slots) , said communication comprising time periods (col. 1, lines 40-45, time period) each comprising a set of said pairs of time slots (col. 1, lines 40-45, pairs of time slots) (col. 1, lines 40-45, two-way full duplex conversation).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Tran '276 into the system of Shinichiro Iwata '213, since Tran '276 recited the motivation in the col. 1, lines 55-60 which utilizes the available resources in an environment where a party connected internal to a network is communicating with a party external to the network.

Regarding to claim 24, Shinichiro Iwata '213 disclose A terminal comprising: reception and transmission means for use in processing said conversational data packets (figure 1, station A, station B) respectively, sending conversational activity signals (figure 1, P/F bit =1) (figure 1, bit = 0) ; conversational activity detection means for detecting local conversational activity at said terminal, signalling means for sending in each of said periods a conversational activity



signal indicative of the local conversational activity from the local terminal to said other terminal (page 7, lines 10-22, the P/F (poll/final) bit included in a frame is used to exchange the right to send between them), and control means responsive to conversational activity occurring at a first one of said terminals and not occurring at the second one of said terminals for controlling said reception and transmission means to communicate by half-duplex (see abstract, half-duplex) transmission of said conversational data packets and for at least partially deactivating during said half-duplex transmission either said reception means in the absence of remote conversational activity or said transmission means in the absence of local conversational activity so as to reduce power consumption (figure 1, when the station A is operating in send phase, the receiving function is stopped) (figure 1, when the station B is operating in receive phase, the sending function is stopped)

However, Shinichiro Iwata '213 are silent to disclosing radio link means for communicating conversational data packets over said radio link capable of full-duplex transmission of conversational data packets in alternate directions within a pair of time slots, said communication comprising time periods each comprising a set of said pairs of time slots.

Tran '276 disclose radio link means for communicating conversational data packets over said radio link capable of full-duplex transmission of conversational data packets in alternate directions within a pair of time slots, said communication comprising time periods each comprising a set of said pairs of time slots (col. 1, lines 40-45, pair of time slots) (col. 1, lines 40-45, time period) (col. 1, lines 40-45, pairs of time slots) (col.

1, lines 30-35, each node within the network is connected to both the transmit channel and the receive channel) (col. 1, lines 40-45, two-way full duplex conversation).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Tran '276 into the system of Shinichiro Iwata '213, since Tran '276 recited the motivation in the col. 1, lines 55-60 which utilizes the available resources in an environment where a party connected internal to a network is communicating with a party external to the network.

Regarding to claim 25, Shinichiro Iwata '213 disclose wherein said control means comprises means for at least partially switching off the supplies of power to said reception means and said transmission means during said half-duplex transmission (page 15, lines 13-17).

6. Claims 13, 26 – 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined system (Shinichiro Iwata '213 - Tran '276) in view of Chauffour et al. (Patent Number: 5,870,397).

Regarding to claim 13, the combined system (Shinichiro Iwata '213 - Tran '276) disclose the limitations of claim 11 above.

However, the combined system (Shinichiro Iwata '213 - Tran '276) are silent to disclosing wherein controlling said reception and transmission means comprises generating audible comfort noise at said first terminal from a locally generated comfort noise signal during said half-duplex transmission.

Chauffour '397 disclose wherein controlling said reception and transmission means comprises generating audible comfort noise at said first terminal from a locally generated comfort noise signal during said half-duplex transmission (col. 2, generating the noise which interleaved between the voice packets received from the transmitting side) (col. 3, lines 332-35, a Voice Activity Detector (VAD) function is used to detect the silent packets of the input voice packet stream).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Chauffour '397 into the combined system (Shinichiro Iwata '213 - Tran '276), since Chauffour '397 recited the motivation in the col. 2, lines 28-32 which provides a method and a system for silence removal independent from the voice coding or voice compression algorithms.

Regarding to claim 26, the combined system (Shinichiro Iwata '213 - Tran '276) disclose the limitations of claim 23 above.

However, the combined system (Shinichiro Iwata '213 - Tran '276) are silent to disclosing wherein said control means comprises means for generating audible comfort noise from a locally generated comfort noise signal during said half-duplex transmission.

Chauffour '397 disclose wherein said control means comprises means for generating audible comfort noise from a locally generated comfort noise signal during said half-duplex transmission (col. 2, generating the noise which interleaved between the voice packets received from the transmitting side) (col. 3, lines 332-35, a Voice

Activity Detector (VAD) function is used to detect the silent packets of the input voice packet stream).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Chauffour '397 into the combined system (Shinichiro Iwata '213 - Tran '276), since Chauffour '397 recited the motivation in the col. 2, lines 28-32 which provides a method and a system for silence removal independent from the voice coding or voice compression algorithms.

Regarding to claim 27, the combined system (Shinichiro Iwata '213 - Tran '276) disclose the limitations of claim 12 above.

However, the combined system (Shinichiro Iwata '213 - Tran '276) are silent to disclosing wherein controlling said reception and transmission means comprises generating audible comfort noise at said first terminal from a locally generated comfort noise signal during said half-duplex transmission.

Chauffour '397 disclose wherein controlling said reception and transmission means comprises generating audible comfort noise at said first terminal from a locally generated comfort noise signal during said half-duplex transmission (col. 2, generating the noise which interleaved between the voice packets received from the transmitting side) (col. 3, lines 332-35, a Voice Activity Detector (VAD) function is used to detect the silent packets of the input voice packet stream).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Chauffour '397 into the combined system

(Shinichiro Iwata '213 - Tran '276), since Chauffour '397 recited the motivation in the col. 2, lines 28-32 which provides a method and a system for silence removal independent from the voice coding or voice compression algorithms.

7. Claims 14, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined system (Shinichiro Iwata '213 - Tran '276) in view of Wajda et al. (Patent No.: US 6,711,584 B1). Wajda '584

Regarding to claim 14, the combined system (Shinichiro Iwata '213 - Tran '276) disclose the limitations of claim 11 above.

However, the combined system (Shinichiro Iwata '213 - Tran '276) are silent to disclosing wherein said conversational data packets are communicated without return transmission of acknowledgement signals.

Wajda '584 disclose wherein said conversational data packets are communicated without return transmission of acknowledgement signals (col. 9, lines 55-60, speech information is to be exchanged in the framework of a conversation.....without acknowledgement of received data is requested).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Wajda '584 into the combined system (Shinichiro Iwata '213 - Tran '276), since Wajda '584 recited the motivation in the col. 2, lines 15-25, which determines in a simple convenient manner features of a communication

relation which meet the desired requirement at a given time so that the communication relation can be established based these features.

Regarding to claim 28, the combined system (Shinichiro Iwata '213 - Tran '276) disclose the limitations of claim 12 above.

However, the combined system (Shinichiro Iwata '213 - Tran '276) are silent to disclosing wherein said conversational data packets are communicated without return transmission of acknowledgement signals.

Wajda '584 disclose wherein said conversational data packets are communicated without return transmission of acknowledgement signals (col. 9, lines 55-60, speech information is to be exchanged in the framework of a conversation.....without acknowledgement of received data is requested).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Wajda '584 into the combined system (Shinichiro Iwata '213 - Tran '276), since Wajda '584 recited the motivation in the col. 2, lines 15-25, which determines in a simple convenient manner features of a communication relation which meet the desired requirement at a given time so that the communication relation can be established based these features.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combined system (Shinichiro Iwata '213 - Tran '276) in view of Mito et al. (Pub. No.: US 2002/0172185 A1).

Regarding to claim 16, Shinichiro Iwata '213 disclose wherein said conversational data packets are transmitted between said terminals over said radio link (figure 1, page 15, lines 1-12, when PWDWN is set to 1, the station B is set to the power-down reset mode. Therefore, power is started supplying to the reception driver for driving the light-receiving device to operate the light-receiving function of the station B).

However, the combined system (Shinichiro Iwata '213 - Tran '276) are silent to disclosing wherein said conversational data packets are transmitted between said terminals over said radio link substantially in conformity with the Bluetooth standard.

Mito '185 disclose wherein said conversational data packets are transmitted between said terminals over said radio link substantially in conformity with the Bluetooth standard (see abstract).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Mito '185 into the combined system (Shinichiro Iwata '213 - Tran '276), since Mito '185 recited the motivation in the paragraph [0025] which improve the use efficiency of time division channels and reducing useless power consumption.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHUONG T. HO whose telephone number is (571)272-3133. The examiner can normally be reached on 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, EDAN ORGAD can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CH  
01/24/09

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